

AMENDMENTS TO THE CLAIMS

Please replace the claims with the following rewritten version:

1. (Currently Amended) Method of illuminating at least two illumination points by substantially uniform predefined amounts of energy provided by at least one spatial light modulator, said at least one spatial light modulator comprising a plurality of light modulators, wherein the method comprising:transmitting the predefined amounts of energy to said at least two illumination points; and

at least partly controlling the predefined amounts of energy by varying the number of said light modulators illuminating said at least two points wherein the illumination of at least two of the illumination points is obtained by predetermined light modulators that form a mask pattern.

wherein at least one filter mask is established at least partly on the basis of an energy measurement of the light modulation layout, and

wherein said at least one filter mask is changed over time,

said changing of said filter mask being at least partly determined by speed of relative movement between said at least two illumination points and said at least one spatial light modulator.

2. (Previously Presented) The method of illuminating at least two illumination points according to claim 1, wherein said at least one illumination point forms part of a light sensitive medium.

3. (Withdrawn) The method of illuminating at least two illumination points according to claim 1, wherein the light modulators illuminating at least one of the at least two illumination points are light modulators of mutually different spatial light modulators.

4. (Withdrawn) The method of illuminating at least two illumination points according to claim1, wherein the illumination is performed during a relative movement

between the at least two illumination points and the at least one spatial light modulator.

5. (Previously Presented) The method of illuminating at least two illumination points according to claim 1, wherein at least one of the at least two illumination points is illuminated by a set of the light modulators of said at least one spatial light modulator.

6. (Cancelled)

7. (Cancelled)

8. (Previously Presented) The method of illuminating at least two illumination points according to claim 1, wherein said amount of energy is substantially the same in each illuminated point, when the illumination is completed.

9. (Withdrawn) The method of illuminating at least two illumination points according to claim 1, wherein the method further comprising:

moving a light modulating arrangement over a surface, said light modulating arrangement comprising said at least one spatial light modulator and said plurality of light modulators;

establishing at least one light modulation layout by said light modulating arrangement, said at least one light modulation layout comprising at least one row containing at least one light modulation point;

receiving light energy at a specific spot on said surface, said received light energy being accumulated from the light energy received from each of said at least one light modulation points of one of said at least one row of one of said at least one light modulation layout; and

at least partly controlling said light energy received at said specific spot on said surface by varying the number of said at least one light modulation points of said at least one row.

10. (Withdrawn) The method of illuminating at least two illumination points according to claim 9, wherein the number of light modulation points is at least partly controlled by blocking some of the light modulators.

11. (Withdrawn) The method of illuminating at least two illumination points according to claim 10, wherein at least one of the light modulators blocked is selected from defective light modulators of the at least one spatial light modulator.

12. (Withdrawn) The method of illuminating at least two illumination points according to claim 10, wherein at least one of the light modulators blocked is selected from light modulators corresponding to light modulation points deviating from desired light modulation point characteristics.

13. (Withdrawn) The method of illuminating at least two illumination points according to claim 10, wherein blocked light modulators form a time varying pattern.

14. (Withdrawn) The method of illuminating at least two illumination points according to claim 10, wherein a number of light modulators to block is determined on the basis of an energy measurement of a light modulation layout .

15. (Withdrawn) The method of illuminating at least two illumination points according to claim 14, wherein an energy measurement is performed on a complete system comprising at least one light source, illumination optics, at least one spatial light modulator and imaging optics.

16. (Withdrawn) The method of illuminating at least two illumination points according to claim 9, wherein the number and distribution of light modulators allocated for illumination of at least one of the at least two illumination points are determined on the

basis of an energy measurement of all light modulation layouts established by the light modulating arrangement.

17. (Withdrawn) The method of illuminating at least two illumination points according to claim 1, wherein the predefined amounts of energy transmitted to said at least two illumination points are transmitted from two different spatial light modulators, respectively.

18. (Withdrawn) The method of illuminating at least two illumination points according to claim 9, wherein said light modulating arrangement further comprises at least one light source.

19. (Withdrawn) The method of illuminating at least two illumination points according to claim 1, wherein said predefined amounts of energy transmitted to said at least two illumination points are established on the basis of distribution of light intensity in both columns and rows of said spatial light modulator.

20. (Withdrawn) The method of illuminating at least two illumination points according to claim 1, wherein the energy transmitted via said spatial light modulator is measured in sub-regions of said columns and rows.

21. (Withdrawn) The method of illuminating at least two illumination points according to claim 20, wherein said sub-regions comprises the individual light modulators.

22. (Previously Presented) The method of illuminating at least two illumination points according to claim 1, wherein said light modulators illuminating said at least two points are selected among the light modulators providing highest intensity.

23. (Cancelled)

24. (Currently Amended) The method of illuminating at least two illumination points according to claim_23, wherein said at least one filter mask is established at least partly on the basis of an energy measurement of at least two different light modulation layouts.

25. (Currently Amended) The method of illuminating at least two illumination points according to claim_23, wherein said at least one filter mask identifies at least one light modulator to be blocked.

26. (Currently Amended) The method of illuminating at least two illumination points according to claim_25, wherein said at least one light modulator identified by said at least one filter mask is selected among the light modulators providing least intensity.

27. (Currently Amended) The method of illuminating at least two illumination points according to claim_25, wherein said at least one light modulator identified by said at least one filter mask is selected among light modulators providing a light beam whose cross-section is distorted or stretched.

28. (Currently Amended) The method of illuminating at least two illumination points according to claim_25, wherein said at least one light modulator identified by said at least one filter mask is selected among the light modulators providing a light beam whose cross-section is regular.

29. (Currently Amended) The method of illuminating at least two illumination points according to claim_23, wherein at least one group of light modulators is identified by said at least one filter mask, said at least one group comprises at least two adjoining light modulators.

30. (Currently Amended) The method of illuminating at least two illumination points according to claim_23, wherein at least one full column of one of said at least one light modulation layout is identified by said filter mask.

31. (Withdrawn) The method of illuminating at least two illumination points according to claim 14, wherein the result of said energy measurement of said light modulation layout is stored in a storage means.

32. (Withdrawn) The method of illuminating at least two illumination points according to claim 14, wherein a common energy level is determined at least partly on the basis of said energy measurement.

33. (Withdrawn) The method of illuminating at least two illumination points according to claim32, wherein said common energy level is stored in a storage means.

34. (Cancelled)

35. (Cancelled)

36. (Currently Amended) The method of illuminating at least two illumination points according to claim_34, wherein said changing of said filter mask is at least partly determined by short-term intensity changes of at least one light source.

37. (Currently Amended) The method of illuminating at least two illumination points according to claim_23, wherein said at least one filter mask is applied to said at least one spatial light modulator before each exposure session.

38. (Previously Presented) The method of illuminating at least two

illumination points according to claim 23, wherein said at least one filter mask is applied to said at least one spatial light modulator on a real time basis.

39. (Currently Amended) The method of illuminating at least two illumination points according to claim_23, wherein said at least one filter mask is applied to a modulation raster image between each exposure session.

40. (Currently Amended) The method of illuminating at least two illumination points according to claim_39, wherein said at least one filter mask is applied to the modulation raster image during exposure.

41. (Previously Presented) The method of illuminating at least two illumination points according to claim 23, wherein said at least one filter mask is stored in a storage means.

42. (Previously Presented) The method of illuminating at least two illumination points according to claim 1, the method further comprising utilizing light modulating chips with one or more defective light modulators.

43. (Currently Amended) The method of illuminating at least two illumination points according to claim 1, the method further comprising compensating non-linearity or non-accuracy of an illumination system, the system comprising at least one input and output optics coupled to the at least one spatial light modulator and at least one thereto-coupled input and output opties.

44. (Currently Amended) Illumination arrangement comprising:
at least one spatial light modulator; and
at least one input and output optical system coupled thereto ;
wherein said illumination arrangement is capable of illuminating at least two

illumination points by substantially uniform predefined amounts of energy provided by said at least one spatial light modulator, wherein said at least one spatial light modulator comprises a plurality of light modulators, wherein the predefined amounts of energy transmitted to said at least two illumination points are at least partly controlled by varying the number of said light modulators illuminating said at least two points, wherein the illumination of at least two of the illumination points is obtained by predetermined light modulators that form a mask pattern,

wherein at least one filter mask is established at least partly on the basis of an energy measurement of the light modulation layout, and

wherein said at least one filter mask is changed over time,

said changing of said filter mask being at least partly determined by speed of relative movement between said at least two illumination points and said at least one spatial light modulator.

45. (Original) Illumination arrangement according to claim 44 wherein said input optical system comprises at least one light source.